instructions for scoring each of the linked documents based on scores for the one or more linking documents; and

instructions for providing the linked documents based on their scores.--

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REMARKS

Applicant would like to thank Examiner Le and Primary Examiner Amsbury for the courtesies extended during the personal interviews that took place on August 22, 2000, and September 20, 2000. In the former interview, Applicant's representatives agreed to amend the claims for clarification purposes. Applicant submits that the clarification presented herein is adequately supported by the specification. In the latter interview, the Examiners seemingly agree that the claims overcome the prior art rejection of record.

In the Office Action, the Examiner objected to claims 1 and 9 due to minor informalities; rejected claims 18, 19, 26, and 36 under 35 U.S.C. § 102(a) as anticipated by Applicant's admission of prior art; rejected claim 28 under 35 U.S.C. § 102(e) as anticipated by Barrett et al. (U.S. Patent No. 5,727,129); rejected claims 25, 27, and 29-33 under 35 U.S.C. § 102(e) as anticipated by Oren et al. (U.S. Patent No. 5,630,117); rejected claims 20, 21, and 23 under 35 U.S.C. § 103(a) as unpatentable over Applicant's admission of prior art; and rejected claims 22, 24, and 37 under 35 U.S.C. § 103(a) as unpatentable over Applicant's admission of prior art in view of Barrett et al. The Examiner allowed claims 1-7 and 9-15.

By this Amendment, Applicant has canceled claims 1-7, 9-15, 26, 27, and 29-33, amended claims 18-25 and 28 to more clearly define the invention, and added new claims 38-45. Applicant respectfully traverses the Examiner's rejections under 35 U.S.C. §§ 102 and 103.

Applicant appreciates the Examiner's indication of allowable subject matter in claims 1-7

and 9-15, but Applicant nevertheless cancels these claims without prejudice or disclaimer. Therefore, the Examiner's objection to claims 1 and 9 and the identification of minor informalities in claims 1-7 and 9-15 during the personal interview are moot. Applicant reserves the right to pursue these claims in a continuation application.

The Examiner rejected pending claims 18, 19, and 36 under 35 U.S.C. § 102(a) as allegedly anticipated by Applicant's admission of prior art. The Examiner alleged that the admitted prior art at pages 3 and 12 of Applicant's specification discloses the invention as claimed. Applicant respectfully disagrees. The admitted prior art at page 3 discloses a Hyperlink Search Engine that determines document relevance by using a variation of keyword matching. In particular, search query terms are compared to a collection of anchor text descriptions that point to the document, and a rank is assigned to the document based on the degree to which the search terms match the anchor descriptions in its backlink documents.

By contrast, the present invention recited in amended independent claim 18, for example, includes a combination of steps for scoring a plurality of linked documents. The combination includes obtaining a plurality of documents, at least some of the documents being linked documents, at least some of the documents being linking documents, and at least some of the documents being both linked documents and linking documents, each of the linked documents being pointed to by a link in one or more of the linking documents; assigning a score to each of the linked documents based on scores of the one or more linking documents; and processing the linked documents according to their scores.

The admitted prior art does not disclose or suggest this claimed combination. Among other things, the admitted prior art does not disclose or suggest assigning a score to each of the linked documents based on the scores of the one or more linking documents. Instead, the

admitted prior art discloses assigning a rank to a document based on a degree to which search terms match the anchor descriptions in its backlink documents (page 3, lines 16-18). In other words, the rank (or score) of a document in the admitted prior art is not based on the rank (or score) of its backlink documents, but on a degree to which a user's search term query matches the anchor descriptions in the backlink documents.

For at least these reasons, Applicant submits that independent claim 18 is not anticipated by the admitted prior art.

Amended dependent claim 19 recites that the assigning step of claim 18 includes identifying a weighting factor for each of the linking documents, where the weighting factor is dependent on the number of links to the one or more linking documents, and adjusting the score of each of the one or more linking documents based on the identified weighting factor. The admitted prior art does not disclose or suggest the claimed combination of identifying a weighting factor for the linking documents that depends on the number of links to the linking documents, adjusting the score of the linking documents based on the identified weighting factor, and assigning a score to the linked documents based on the scores of the linking documents.

For at least these reasons and the reasons given with regard to claim 18, Applicant submits that dependent claim 19 is not anticipated by the admitted prior art.

Independent claim 36 recites a combination of steps for ranking a plurality of linked documents. The combination includes performing a random traversal of a plurality of linked documents, wherein performing a random traversal includes selecting a random link to traverse in a current linked document; for each linked document that is traversed, assigning a rank to the linked document that is dependent on the number of times the linked document has been

traversed; and processing the plurality of linked documents according to their rank.

The admitted prior art does not disclose or suggest this claimed combination. Among other things, the admitted prior art does not disclose or suggest performing a random traversal of a plurality of linked documents, where the random traversal includes selecting a random link to traverse in a current linked document and, for each linked document that is traversed, assigning a rank to the linked document that is dependent on the number of times the linked document has been traversed.

The Examiner alleged that the citation counting method described in Applicant's specification at page 3, lines 20-22, discloses assigning a rank to a linked document based on the number of times the linked document has been traversed. Applicant respectfully disagrees. At the cited section, Applicant discloses that the citation counting method determines "the importance of a document by counting its number of citations, or backlinks." Counting the number of citations for a document, however, is not the same as determining the number of times that document will be traversed. Therefore, this section of Applicant's specification in no way discloses or implies that a linked document is ranked based on the number of times that the linked document has been traversed by a random traversal, as recited in claim 36.

The Examiner also alleges that the admitted prior art discloses performing a random traversal at page 12, line 19. Applicant respectfully disagrees. At page 12, lines 16-20, of Applicant's specification, Applicant discloses that "[t]he $(1-\alpha)$ factor acts as a damping factor that limits the extent to which a document's rank can be inherited by children documents. This models the fact that users typically jump to a different place in the web after following a few links." Applicant notes that the portion of the specification cited by the Examiner does not appear in the Background of the Invention section, but rather describes Applicant's preferred

embodiment. Furthermore, the mere notion that a user may completely leave a web page (rather than follow one of its links) in no way discloses or implies a computer implemented method that performs a random traversal that follows links from one page to another, as recited in claim 36.

Accordingly, Applicant submits that independent claim 36 is not anticipated by the admitted prior art.

In view of the foregoing, Applicant respectfully requests the reconsideration and withdrawal of the rejection of pending claims 18, 19, and 36.

The Examiner rejected pending claim 28 under 35 U.S.C. § 102(e) as allegedly anticipated by Barrett et al. The Examiner alleged that Barrett et al. discloses the invention as claimed. Applicant respectfully disagrees. Barrett et al. discloses a system that maintains information regarding remote sites accessed by a user and pre-downloads information that the user is predicted to likely want to access (Abstract).

By contrast, the invention recited in amended claim 28 includes a combination of steps for ranking a plurality of linked documents. The combination includes obtaining a plurality of documents, at least some of the documents being linked documents and at least some of the documents being linking documents, at least some of the linking documents also being linked documents, each of the linked documents being pointed to by a link in one or more of the linking documents; generating an initial estimate of a rank for each of the linked documents; updating the estimate of the rank for each of the linked documents using ranks for the one or more linking documents; and processing the linked documents according to their updated ranks.

Barrett et al. fails to disclose or suggest this claimed combination. Among other things, Barrett et al. fails to disclose or suggest updating an estimate of the rank for each of the linked documents using ranks for the one or more linking documents. Instead, Barrett et al. discloses

predicting web pages that a user may visit based on the current web page and information regarding previous visits to the current web page (col. 7, line 34 - col. 8, line 26). Barrett et al. does not, however, disclose determining (i.e., updating an estimate of) a rank of a linked document based on the ranks for one or more linking documents, as recited in claim 28.

For at least these reasons, Applicant submits that independent claim 28 is not anticipated by Barrett et al. Applicant, therefore, respectfully requests the reconsideration and withdrawal of the rejection of claim 28.

The Examiner rejected pending claim 25 under 35 U.S.C. § 102(e) as allegedly anticipated by Oren et al. The Examiner alleged that Oren et al. discloses the invention as claimed. Applicant respectfully disagrees. Oren et al. discloses a system that ranks documents in a linked database based on the documents' relevancy to a selected option (col. 8, lines 14-19).

By contrast, the present invention recited in amended independent claim 25, for example, recites a combination of steps for determining a score for a plurality of linked documents. The combination includes obtaining a plurality of linked documents; selecting one of the linked documents; assigning a score to the selected document that is dependent on scores of documents that link to the selected document; and processing the linked documents according to their scores.

Oren et al. fails to disclose or suggest this claimed combination. Among other things, Oren et al. fails to disclose or suggest assigning a score to a document, selected from a plurality of linked documents, that is dependent on scores of documents that link to the selected document. Instead, Oren et al. discloses determining a rank of a linked document based on its relevancy to a selected option (i.e., a set of index terms) (col. 7, lines 8-10; col. 8, lines 14-19).

For at least these reasons, Applicant submits that independent claim 25 is not anticipated

by <u>Oren et al.</u> Applicant, therefore, requests the reconsideration and withdrawal of the rejection of pending claim 25.

The Examiner rejected claims 20, 21, and 23 under 35 U.S.C. § 103(a) as allegedly unpatentable over Applicant's admission of prior art. Amended dependent claims 20, 21, and 23 recite that the assigning step of claim 18 includes identifying a weighting factor for each of the linking documents, where the weighting factor is dependent on criteria that differs in the different claims, and adjusting the score of each of the one or more linking documents based on the identified weighting factor. The admitted prior art does not disclose or suggest identifying a weighting factor or adjusting a score based on the identified weighting factor.

For at least these reasons and the reasons given with regard to claim 18, Applicant submits that dependent claims 20, 21, and 23 are patentable over the admitted prior art. Applicant, therefore, respectfully requests the reconsideration and withdrawal of the rejection of claims 20, 21, and 23.

The Examiner rejected claims 22, 24, and 37 under 35 U.S.C. § 103(a) as allegedly unpatentable over a combination of Applicant's admission of prior art and <u>Barrett et al.</u> The Examiner alleged that the combination discloses the invention substantially as claimed. Applicant respectfully disagrees.

Amended dependent claims 22 and 24 recite that the assigning step of claim 18 includes identifying a weighting factor for each of the linking documents, where the weighting factor is dependent on criteria that differs in the different claims, and adjusting the score of each of the one or more linking documents based on the identified weighting factor. As described above, the admitted prior art does not disclose or suggest identifying a weighting factor or adjusting a score based on the identified weighting factor. The disclosure of <u>Barrett et al.</u> provides nothing

to cure the deficiencies in the disclosure of the admitted prior art. Accordingly, Applicant submits that dependent claims 22 and 24 are patentable over the admitted prior art and <u>Barrett et al.</u>, whether taken alone or in any reasonable combination, for at least the foregoing reasons and the reasons given with regard to independent claim 18.

With regard to dependent claim 37, Applicant submits that the disclosure of <u>Barrett et al.</u> provides nothing to cure the deficiencies in the disclosure of the admitted prior art described above with regard to claim 36. Accordingly, Applicant submits that dependent claim 37 is patentable over the admitted prior art and <u>Barrett et al.</u>, whether taken alone or in any reasonable combination, for at least the reasons given with regard to independent claim 36.

In view of the foregoing, Applicant respectfully requests the reconsideration and withdrawal of the rejections of claims 22, 24, and 37.

New claims 38-43 are dependent claims that ultimately depend upon independent claim 18. Applicant submits that these dependent claims are patentable over the prior art of record for at least the reasons given with regard to claim 18. New claims 44 and 45 are independent claims that recite features similar to independent claim 18. Applicant submits that these claims are, therefore, patentable over the prior art of record for the reasons given above with regard to independent claim 18.
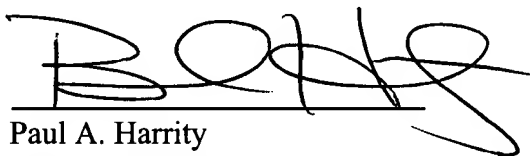
In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of the application and the timely allowance of pending claims 18-25, 28, and 36-45.

To the extent necessary, a petition for an extension of time under 35 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess

fees to such deposit account.

Respectfully submitted,

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Dated: September 20, 2000

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